



# Newborn Screening Quality Assurance Program

## PROFICIENCY TESTING PROGRAM FOR ANTI-HIV-1 IN DRIED BLOOD SPOTS

Quarterly Report

Quarter 1

February 2006

For the first quarter of 2006, we received data reports for 44 HIV-1 proficiency testing (PT) panels from 39 participants. Participants conducting screening analysis reported two misclassifications, and those conducting confirmatory analysis reported no misclassifications.

The PT panel for Quarter 1 consisted of five individual-matrix dried-blood spot (DBS) specimens. In Part 1 of the report, Table 1 shows the number of laboratories using each screening method/kit; Table 2 shows the expected results and the number of laboratories reporting reactive and non-reactive results; and Table 3 summarizes EIA absorbance ranges and means by specimen number and method of analysis (representative data are shown for three kits). Table 3 also shows the results obtained by CDC.

In Part 2 of the report, Table 4 shows the number of laboratories using each confirmatory method/kit; Table 5 shows the expected results, number of laboratories reporting reactive, non-reactive, or indeterminate

results, and number of laboratories not reporting confirmatory results; and Table 6 shows the band classifications by method of PT specimens that tested positive for HIV-1 initially and after repeat EIA analysis (representative data are shown for three methods). Table 6 also shows the results obtained by CDC.❖

The Quality Assurance Program will ship next quarter's HIV-1 DBS proficiency testing specimens on April 10, 2006, and the next major allotment of HIV-1 DBS quality control specimens on July 17, 2006.❖

*Continued Challenges in HIV/AIDS Care and Prevention: A Focus on Women and Children* will be held April 21-23, 2006, in Atlanta, Georgia. This conference provides in-depth and cutting-edge information on emerging challenges in HIV clinical care. For more information, visit [www.anacnet.org](http://www.anacnet.org).❖

The XVI International AIDS Conference will be held August 13-18, 2006, in Toronto, Ontario, Canada.

It is the world's largest, most comprehensive HIV/AIDS conference. The theme will be *Time to Deliver*. For more information, visit <http://www.aids2006.org/>.❖

### SpotLight

CDC Global AIDS Program (GAP) is a proud partner in the unified U.S. Government effort to implement the President's Emergency Plan for AIDS Relief. For more information about GAP, visit <http://www.cdc.gov/ncstp/od/gap/>.❖

Quarterly publication for colleagues and participants of the Performance Evaluation Program for Anti-HIV-1 in Dried Blood Spots.

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CENTERS FOR DISEASE CONTROL AND PREVENTION  
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# Quarter 1, 2006

## PART 1. SCREENING

Table 1.

## Screening Methods

Kit Source	Total Participants
Genetic Systems rLAV EIA (Bio-Rad)	5
bioMerieux Vironostika HIV-1 Microelisa System	9
bioMerieux Vironostika Uni-Form II <i>plus O</i>	7
Fujirebio Serodia-HIV	2
Abbott Murex HIV 1+2 Gacelisa	1
Murex HIV 1.2.0	3
Tecnosuma (Cuba) UMELISA HIV 1+2	2
Other	14
In House	1
Total	44

Table 2.

## Number of Labs Reporting Screening Results

Specimen Number	Expected Results	Reactive	Non-reactive	No Interpretation
1641	Reactive	43	0	1
1642	Non-reactive	0	43	1
1643	Non-reactive	1	42	1
1644	Reactive	42	1	1
1645	Reactive	43	0	1

Table 3.

## Kit Source

## Specimen Number

## Cutoff Value

		1641	1642	1643	1644	1645	
Genetic Systems	Range	1.233-2.219	0.088-0.118	0.082-0.133	1.071-1.921	1.351-2.329	0.266-0.298
	Mean	1.929	0.097	0.111	1.621	2.063	0.282
	CDC Results	2.046	0.101	0.147	1.460	2.232	0.299
bioMerieux Vironostika	Range	1.594-2.869	0.139-0.429	0.144-0.380	0.924-2.800	1.862-2.939	0.412-0.648
	Mean	2.649	0.235	0.232	2.243	2.656	0.473
	CDC Results	2.745	0.139	0.255	2.499	2.781	0.450
bioMerieux Vironostika Uni-Form II <i>plus O</i>	Range	2.964-3.521	0.049-0.119	0.060-0.254	0.843-2.212	3.000-4.000	0.144-0.260
	Mean	3.324	0.091	0.107	1.531	3.298	0.203

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

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# Quarter 1, 2006

## PART 2. Continued

Table 6.

Specimen 1644

Methods	gp160		gp120		p66		p55		p51		gp41		p31		p24		p18	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
CDC (GS HIV-1 Kit, Bio-Rad)	✓		✓		✓		✓		✓		✓		✓		✓		✓	
Genetic Systems HIV-1 Kit (Bio-Rad)	12	0	12	0	6	6	10	2	8	4	10	2	8	4	12	0	11	1
Bio-Rad New LAV Blot I	4	0	3	1	2	2	4	0	2	2	3	1	1	3	2	2	4	0
Genelab Diagnostics HIV 2.2	3	0	3	0	0	2	0	2	0	2	0	2	0	2	2	0	2	0

Table 6.

Specimen 1645

Methods	gp160		gp120		p66		p55		p51		gp41		p31		p24		p18	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
CDC (GS HIV-1 Kit, Bio-Rad)	✓		✓		✓		✓		✓		✓		✓		✓		✓	
Genetic Systems HIV-1 Kit (Bio-Rad)	12	0	12	0	12	0	10	2	11	1	12	0	12	0	12	0	3	9
Bio-Rad New LAV Blot I	4	0	4	0	2	2	4	0	2	2	4	0	1	3	2	2	4	0
Genelab Diagnostics HIV 2.2	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1

This **NEWBORN SCREENING QUALITY ASSURANCE PROGRAM** report is an internal publication distributed to program participants and selected program colleagues. The laboratory quality assurance program is a project cosponsored by the **Centers for Disease Control and Prevention (CDC)** and the **Association of Public Health Laboratories**.

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